

Der p 1 (SEQ ID NO: 19)

MKIVLAIASLLALSAYVARPSSIKTEEEYKKA FNKSYATFEDEEAAR
KNFLESVKYVQSNNGGAINHLS DLSI DEFKNRFLMSAEAFEHLKTQF
DLNAETNACSINGNAPAEIDLRQMRTVTPIRMQGGCGSCWAFSGV
AATESAYLAYRNQSLDLAEQELVDCASQHGCHGDTIPRGIEYIQHN
GVVQESYYRYVAREQSCRRPNAQRFGISNYCQIYPPNVNKIREALA
QTHSAIAVIIIGIKDLDAFRHYDGRTHIQRDNGYQPNYHAVNIVGYSN
AQQVDYWIVRNSWDTNWGDNGYGYFAANIDLMMIEEYPYVVIL

Der p 2 (SEQ ID NO: 20)

MMYKILCLSLLVAAVARDQVDVKDCANHEIKKVLVPGCHGSEPCII
HRGKPFQLEAVFEANQNTKTAKIEIKASIDGLEVDVPGIDPNACHY
MKCPLVKGQQYDIKYTNVVPKIAPKSENVVVTVKVMGDDGVLAC
AIATHAKIRD

Der p 3 (SEQ ID NO: 21)

MHIYNILIVLLLAINTLANPILPASPNATIVGGEKALAGECPYQISLQS
SSHFCGGTILDEYWILTAAHCVAGQTASKLSIRYNSLKHSLGG EKIS

3. On page 51, please replace all of the text on page 51 with the following text:

VAKIFAHEKYDSYQIDNDIALIKLKSPMKLNQKNAKAVGLPAKGSD
VKVGDQVRVSGWGYLEEGSYSLPSELRRVDIAVVS RKECNELYSKA
NAEVTDNMICGGDVANGGKDSCQGDSGGPVVDVKNNQVVGIVSW
GYGCARKGYPGVYTRVGNFIDWIESKRSQ

Der p 4 (SEQ ID NO: 22)

KYXNPFIGXRSVITXLME

Der p 5 (SEQ ID NO: 23)

MKFIIAFFVATLAVMTVSGEDKKHDYQNEFDLLMERIHEQIKKGE
LALFY LQEQINHFE EKPTKEMKDKIVAEMDTIHAMIDGVRGVLDRL
MQRKDL DIFEQYNLEMAKKSGDILERDLKKEEARVKKIEV

Der p 6 (SEQ ID NO: 24)

MMKILHIAAAAFVAVSADPHHYDKHFFINKAVDEAVVAHEKSEFED
PMKVDPDHS DKFERHIGHIDLKGELDMRNIQVRGLKQMKRVGDANV
ESLDCAAKAIHIVGVHDDVA SMIYDEAYKEGDIHPNTHVSDIQD
EAVETSEIASEIGNMITESEIARQFANVANHIGGSEIDPHAVESD
VLTAEFQDIVRAEMTKVLAPAFKKELERNNQ

Der p9 (SEQ ID NO: 26)

IVGGSNASPGDAVYQIAL

Dermatophagoides farinae

Der f1 (SEQ ID NO: 27)

MKFVLAIASLLVLTVYARPASIKTFEFKKAFNKNYATVEEEEVARK

4. On page 52, please replace all of the text on page 52 with the following text:

NFLESLKYVEANKGAINHLSDSLDEFKNRYLMSAEAFEQLKTQFD
LNAETSACRINSVNVPSSELDLRLRTVTPIRMQGGCGSCWAFSGVA
ATESAYLAYRNTSLDLSEQELVDCASQHGCHGDTIPRGIEYIQQNG
VVEERSYPYVAREQRCRRPNSQHYGISNYCQIYPPDVKQIREALTQT
HTAIAVIIGIKDLRAFQHYDGRTHQHONGYQPNYHAVNIVGYGSTQ
GDDYWIVRNSWDTTWGD SGYGYFQAGNNLMMIEQYPYVIM

Der f2 (SEQ ID NO: 28)

MISKILCLSLVAADVADQVDVKDCANNEIKKVMVDGCHGSDPCII
HRGKPFTLEALFDANQNTKTAKIEIKASLDGLEIDVPGIDTNACHFM
KCPLVKGQQYDIKYTNVNPKIAPKSENVVTVKLIGDNGVLACAIA
THGKIRD

Der f3 (SEQ ID NO: 29)

MMILTIVLLAANILATPILPSSPNATIVGGVKAQAGDCPYQISLQSS
SHFCGGSILDEYWILTAHCVNGQSAKKLSIRYNTLKHASGGEKIQV
AEIYQHENVDSMTIDNDVALIKLKTTPMTLDQTNAPVPLPAQGS DV
KVGDKIRVSGWGYLQEGSYSLPSELQRVDIDVVSREQCDQLYSKAG
ADVSENMICGGDVANGGVDSCQGD SGGPVVDVATKQIVGIVSWGY
GCARKGYPGVYTRVGNFVDWIESKRSQ

Der f4 (SEQ ID NO: 30)

AVGGQDADLAEAPFQISLLK

Der f7 (SEQ ID NO: 31)

MMKELLIAAVAFVAVSADPIHYDKITEEINKAIDDAIAAIEQSETIDP

VAISLEISDEGNITMISFEVRQFANVYNHGGISLIDPIEGVLSDV
TAIFQDTYRKEMTKVLAPAFKRELEKN

On page 53, please replace all of the text on page 53 with the following text:

Additional mite allergen sequences (NCBI entrez accession)

1170095; 1359436; 2440053; 666007; 487661; 1545803; 84702; 84699;
625532; 404370; 1091577; 1460058; 7413; 9072; 387592.

Cat

Felis sequences

1082946 Fel dI chain 2 precursor - cat (SEQ ID NO: 32)

MRGALLVLALLVTQALGVKMAETCPIFYDVFFAVANGNELLLDLS
LTKVNATEPERTAMKKIQDCYVENGLISRVLDGLVMTTISSSKDCM
GEAVQNTVEDLKLNTLGR

1082945 Fel dI chain 1 short form - cat (SEQ ID NO: 33)

MLDAALPPCPTVAATADCEICPAVKRDVDLFLTGTPDEYVEQVAQ
YKALPVVLENARILKNCVDAKMTEEDKENALSLLDKIYTSPLC

1082944 Fel dI chain 1 long form precursor - cat (SEQ ID NO: 34)

MKGARVLVLLWAALLLIWGGNCEICPAVKRDVDLFLTGTPDEYVE
QVAQYKALPVVLENARILKNCVDAKMTEEDKENALSLLDKIYTSPL
C

Additional Felis sequences (NCBI entrez accession):

539716; 539715; 423193; 423192; 423191; 423190; 1364213; 1364212;
395407; 163827; 163823; 163825; 1169665; 232086; 1169666.

Latex

Hevea sequences:

6. On page 54, please replace all of the text on page 54 with the following text:

Hev b 1 (SEQ ID NO: 35)

MAEDEDNQQQGEGGLKYLGFVQDAATYAVTTFSNVYLFKDKSG
PLQPGVDIIIEGPVKNVAVPLYNRFYIPNGALKFVDSTVVASVTHDR
SLPPIVKDASIQVVS AIRAAPEAAARSLASSLPGQTKILAKVFYGEN

Hev b 3 (SEQ ID NO: 36)

MAEEVEEERLKYLD FVRAAGVYAVDSFSTLYLYAKDISGPLKPGV

YAVTHWRAI NKIPLVPQVANVAVPLAVYESFKYNDVARGITFQGY
RVSSYLPLLPTEKITKVEGDEAS

Additional Hevea sequences (NCBI entrez accession):

8319923; 8319921; 3087805; 1493836; 1480457; 1223884; 848211;
3451147; 1916805; 232267; 123335; 2501578; 3319662; 3288200;

1942537; 2392631; 2392630; 1421554; 1311006; 494093; 3183706; 3172534;
283243; 1170248; 1708278; 1706547; 464775; 266892;
231586; 123337; 116359; 123062; 2213877; 542013; 2144920; 1070656;
2129914; 2129913; 2129912; 100135; 82026; 1076559; 82028; 82027;
282933; 280399; 100138; 1086972; 108697; 1086976; 1086978;
1086978; 1086976; 1086974; 1086972; 913758; 913757; 913756;
234388; 1092500; 228691; 1177405; 18839; 18837; 18835; 18833;
18831; 1209317; 1184668; 168217; 168215; 168213; 168211; 168209;
348137.

Rye grass

Lolium sequences:

126385 Lol p 1 (SEQ ID NO: 37)

On page 55, please replace all of the text on page 55 with the following text:

MASSSSVLLVVALFAVFLGSAHGIKVPPGPNITAEYGDKWLDAKS
TWYGKPTGAGPKDNGGACGYKNVDKAPFNGMTGCGNTPIFKDGR
GCCSCFEIKCTKPESCSGEAVTVTITDDNEEPIAPYHFDLSGHAFGS
MAKKGEEQNVRSA GELELQFRRVKCKYPDDTKPTFHVEKASNPNY
LAILVKYVDGDGDVVAVDIKEKGKDKWIELKESWGAVWRIDTPDK
LTGPFTVRYTTEGGTKSEFEDVIPEGWKADTSYSK

126386 Lol p 2a (SEQ ID NO: 38)

AAPVEFTVEKGSDEKNLALSIKYNKEGDSMAEVELKEHGSNEWLA
LKKNGDGVWEIKSDKPLKGFNFRFVSEKGMNRNVFDDVVPADFKV
GTTYKPE

126387 Lol p 3 (SEQ ID NO: 39)

TKVDLTVEKGSDAKTLVLNIKYTRPGDTLAEVELRQHGSEEWEP
TKKGNLWEVKSAPLTGPMNFRFLSKGGMKNVFDEVIPTAFTVGK
TYTPEYN

2498581 Lol p 5a (SEQ ID NO: 40)

PSPPRASSPTSAAKAPGLIPKIDLAYDVAYKAALAHPRGQVRRIRH
CPHRSIRVIAGALVHAYKPATEEVLA AKIPTGELQIVDKIDAAFKI
AAVAAVAAPIINDKELVHESALNKALNICTGGAMRPISSSPSRPRS
SRPIPPPSRAAPEVKYAVFEAAITKALHAMIQVQKAGKPAAAAVAV
AATVATAAAFAAAVLPPIIVVQSLISLIIYY

2498582 Lol p 5b (SEQ ID NO: 41)

MAVQKHTVALFLAVLVAGPAASYAADAGYAPATPATPAAPATA
ATPATPATPATPAAVPSGKATTEEQKLIKINAGFKAAVAAAAVVP
PADKYKTFVETFGTATNKAFVEGLASGYADQSKNQLTSKIDAALK

8. On page 56, please replace all of the text on page 56 with the following text:

LAYEAAQGATPEAKYDAYVATLTEALRVIAGTLEVHAVKPAAEEV
KVGAI PAAEVQLIDKVDAAYRTAATAANAAPANDKFTVFENTFNN
AIKVSLGAAAYDSYKFIPTLVAAVKQAYAAKQATAPEVKYTVSETAL
KKAVTAMSEAEKEATPAAAATATPTPAAATATATPAAAYATATPA
AATATATPAAATATPAAAGGYKV

455288 Lol p isoform 9 (SEQ ID NO: 42)

MAVQKHTVALFLAVLVAGPAASYAADAGYAPATPATPAAPATA
ATPATPATPATPAAVPSGKATTEEQKLIKINAGFKAAVAAAAVVP
PADKYKTFVETFGTATNKAFVEGLASGYADQSKNQLTSKIDAALK
LAYEAAQGATPEAKYDAYVATLTEALRVIAGTLEVHAVKPAAEEV
KVGAI PAAEVQLIDKVDAAYRTAATAANAAPANDKFTVFENTFNN
AIKVSLGAAAYDSYKFIPTLVAAVKQAYAAKQATAPEVKYTVSETAL
KKAVTAMSEAEKEATPAAAATATPTPAAATATATPAAAYATATPA
AATATATPAAATATPAAAGGYKV

1582249 Lol p 11 (SEQ ID NO: 43)

DKGPGFVVTGRVYCDPCRAGFETNVSHNVEGATVAVD CRPFDGG
ESKLKAEATTDKDGWYKIEIDQDHQEEICEVVLAKSPDKSCSEIEEF
RDRARVPLTSNXGIKQQGIRYANPIAFFRKEPLKECGGILQAY

Additional *Lolium* sequences (NCBI entrez accession):

135480; 417103; 687261, 687259; 1771355; 2388662; 631955; 542131;
542130; 542129; 100636, 626029; 542132; 320616; 320615; 320614;
100638; 100634; 82450; 626028; 100639; 283345; 542133; 1771353;
1763163; 1040877; 1040875; 250525; 551047; 515377; 510911; 939932;

9. On page 57, please replace all of the text on page 57 with the following text

Olive tree

Olea sequences:

416610 Ole c 1 (SEQ ID NO: 44)

LMPCLPFVQGKEKEPSKGCCSGAKRLDGETKTGPQRVHACECIQTA
MKTYSIDIDGKLVSEVPKHCGIVDSKLPIDVNMDCCTLGVLHYKG
N

1086003 Par j 1 (SEQ ID NO: 50)

MVRALMPCLPFVQGKEKEPSKGCCSGAKRLDGETKTGPQRVHACE
CIQTAMKTYSIDIDGKLVSEVPKHCGIVDSKLPIDVNMDCKTVGVV
PRQPQLPVSLRHGPVTGPSRSRPPTKHGWRDPRLEFRPPHRKKPNP
AFSTLG

Additional *Parietaria* sequences (NCBI entrez accession):

543659; 1836011; 1836010; 1311513; 1311512; 1311511; 1311510; 1311509;
240971.

Timothy grass

Phleum sequences:

Phl p 1 (SEQ ID NO: 51)

MASSSSVLLVVVLFVAVFLGSAYGIPKVPPGPNITATYGDKWLDAKS
TWYGKPTGAGPKDNGGACGYKDVDKPPFSGMTGCGNTPIFKSGRG
CGSCFEIKCTKPEACSGEPVVVHITDDNEEPIAPYHFDLSGHAFGAM
AKKGDEQKLRSAGELELQFRRVKCKYPEGTKVTFHVEKGSNPNYL
ALLVKYVNGDGDVVAVDIKEKGKDKWIELKESWGAIWRIDTPDKL

11. On page 59, please replace all of the text on page 59 with the following text:

TGPFTVRYTTEGGTKTEAEDVIPEGWKADTSYESK

Phl p 1 (SEQ ID NO: 52)

TWYGKPTGAGPKDNGGACGYKDVDKPPFSGMTGCGNTPIFKSGRG
CGSCFEIKCTKPEACSGEPVVVHITDDNEEPIAAYHFDLSGIAFGSM
AKKODEQKLRSAGELELQFRRVKCKYPEGTKVTFHVEKGSNPNYL
ALLVKESGDGDVVAVDIKEKGKDKWIELKESWGAIWRIDTPEVTK

GPFTVRYTTTEGGTKARAKDVIPEGWKADTAYESK

Phlp 2 (SEQ ID NO: 53)

MSMASSSSSSLLAMAVLAALFAGAWCVPKVTFTVEKGSNEKHLAV
LVKYEGDTMAEVELREHGSDEWVAMTKGEGGVWTFDSEEPLQGP
FNFRFLTEKGMKNVFDVPEKYTIGATYAPEE

Phlp 5 (SEQ ID NO: 54)

ADLGYGGPATPAAPAEAAPAGKATTEEQKLIEKINDGFKAALAAA
AGVPPADKYKTFVATFGAASNKAFAEGLSAEPKGAAESSSKAALTS
KLDAAAYKLAYKTAEGATPEAKYDAYVATLSEALRIIAGTLEVHAV
KPAAEEVKVIPAGELQVIEKVDSAFKVAATAANAAPANDKFTVFEA
AFNNAIKASTGGAYESYKFIPALEAAVKQAYAATVATAPEVKYTVF

12. On page 60, please replace all of the text on page 59 with the following text:

ETALKKAFTAMSEAQKAAPATEATATATAAVGAATGAATAATG
GYKV

Phlp 5 (SEQ ID NO: 55)

ADLGYGGPATPAAPAEAAPAGKATTEEQKLIEKINDGFKAALAAA
AGVPPADKYKTFVATFGAASNKAFAEGLSAEPKGAAESSSKAALTS
KLDAAAYKLAYKTAEGATPEAKYDAYVATLSEALRIIAGTLEVHAV
KPAAEEVKVIPAGELQVIEKVDSAFKVAATAANAAPANDKFTVFEA
AFNNAIKASTGGAYESYKFIPALEAAVKQAYAATVATAPEVKYTVF
ETALKKAITAMSEAQKAAPATEATATATAAVGAATGAATAATGG
YKV

AAAAVPRRGPRGGPGRSYTADAGYAPATPAAAGAAAGKATTEEQ
KLIEDINVGFKAADVAAAASVPAADKFKTFEAAFTSSSKAAAAKAPG
VPRIDAAVSVAYKAAVGAATPEAKEDSAVASLIIAIVATAGALEV
HAVKPVTEPGMAKIPAGELQIIDKIDAAFKVAATAAATAPADDKF

TVFEAAFNKAIKESTGGAYDTYKCIPSL EAAVKQAYAATVAAAPQV
KYAVFEAALTKAITAMSEVQKVSQPATGAATVAAGAATTAAGAAS
GAATVAAGGYKV

Phl p 5a (SEQ ID NO: 57)

ADLGYGPATPAAPAAGYTPATPAAPAGADAAGKATTEEQKLI EKIN
AGFKAALAGAGVQPADKYRTFVATFGPASNKAF AEGLSGEPKGAA
ESSSKAALTSKLDAA YKLAYKTAEGATPEAKYDAYVATLSEALRII
AGTLEVHAVKPAAEEVKVIPAGELQVIEKVDAAFKVAATAANAAP
ANDKFTVFEAAFNDEIKASTGGAYESYKFIPALEAAVKQAYAATVA
TAPEVKYTVFETALKKAITAMSEAQKA AKPAAAATATATAAVGAA
TGAATAATGGYKV

Phl p 5 (SEQ ID NO: 58)

MAVQKYTV ALFLAVALVAGPAASYAADAGYAPATPAAAGAEAGK
ATTEEQKLI EDINVGFKAAVAAAASVPAADKFKTFEAAFTSSSKAA
TAKAPGLVPKLDAAYSVSYKAAVGATPEAKFDSFVASLTEALRVIA
GALEVHAVKPVTEEPGMAKIPAGELQIIDKIDA AAFKVAATAAATAP
ADTVFEAAFNKAIKESTGGAYDTYKCIPSL EAAVKQAYAATVAAAP
QVKYAVFEAALTKAITAMSEVQKVSQPATGAATVAAGAATTAAG
AASGAATVAAGGYKV

13. On page 61, please replace all of the text on page 61 with the following text:

Phl p 5 (SEQ ID NO: 59)

MAVQKYTV ALFLAVALVAGPAASYAADAGYAPATPAAAGAEAGK
GALEVHAVKPV TLDPAWPKIPAGELQIIDKIDA AAFKVAATAAATAP
ADDKETVFEAAFNKAIKESTGGAYDTYKCIPSL EAAVKQAYAATV
AAAPQVKYAVFEAALTKAITAMSEVQKVSQPATGAATVAAGAATTAAG

ATGAASGAATVAAGGYKV

Phl p 5 (SEQ ID NO: 60)

ADAGYAPATPAAAGAEAGKATTEEQKLIEDINVGFKAAVAAAASV
PAADKFKTFEAAFTSSSKAATAKAPGLVPK LDAAYS VAYKAAVGA
TPEAKFDSFVASLTEALRVIAGALEVHAVKPVTEEPGMAKIPAGEL
QIIDKIDAAFKVAATAAATAPADDKFTVFEEAFNKAIKESTGGAYD
TYKCIPSLEAAVKQAYAATVAAAPQVKYAVFEAALTKAITAMSEV
QKVSQPATGAATVAAGAATTAAGAASGAATVAAGGYKV

Phl p 5 (SEQ ID NO: 61)

SVKRSNGSAEVHRGAVPRRGPRGGPGRSYAADAGYAPATPAAAGA
EAGKATTEEQKLIEDINVGFKAAVAAAASVPAADKFKTFEAAFTSS
SKAATAKAPGLVPK LDAAYS VAYKAAVGATPEAKFDSFVASLTEA
LRVIAGALEVHAVKPVTEEPGMAKIPAGELQIIDKIDAAFKVAATAA
ATAPADDKFTVFEEAFNKAIKESTGGAYDTYKCIPSLEAAVKQAYA
ATVAAAPQVKYAVFEAALTKAITAMSEVQKVSQPATGAATVAAGA
ATTAAGAASGAATVAAGGYKV

Phl p 5 (SEQ ID NO: 62)

MAVHQYTVALFLAVALVAGPAGSYAADLGYGPATPAAPAAGYTP
ATPAAPAGAEPAGKATTEEQKLI EKINAGFKAALAAAAGVPPADKY
RTFVATFGAASNKAFAEGLSGEPKGAAESSKAALTSK LDAAYKLA

14. On page 62, please replace all of the text on page 62 with the following text:

YKTAEGATPEAKYDAYVATVSEALRIIAGTLEVHAVKPAAEEVKVI

EGGAYESYKEIPALFAAVKQAYAAIVATAPFVKYIVFEALKKAL
AMSEAQKAAKPAAAATATATAAVGAATGAATAATGGYKV

Phl p 5 (SEQ ID NO: 63)

ADLGYGGPATPAAPAEAPAGKATTEFQKIEKINDGFKAAALAAA

AGVPPADKYKTFVATFGAASNKAFAEGLSAEPKGAAESSSKAALTS
KLDAAAYKLAYKTAEGATPEAKYDAYVATLSEALRIIAGTLEVHAV
KPAAEEVKVIPAGELQVIEKVDSAFKVAATAANAAPANDKFTVFEA
AFNNAIKASTGGAYESYKFIPALEAAVKQAYAATVATAPEVKYTVF
ETALKKAFTAMSEAQKAAPATEATATATAAVGAATGAATAATG
GYKV

Phl p5b (SEQ ID NO: 64)

AAAAVPRRGPRGGPGRSYTADAGYAPATPAAAGAAAGKATTEEQ
KLIEDINVGFKA AVAAAASVPAADKFKTFEAAFTSSSKAAAAKAPG
LVPKLDAAYSVAYKAAVGATPEAKFDSFVASLTEALRVIAGALEV
HAVKPVTEEPGMAKIPAGELQIIDKIDAAFKVAATAAATAPADDKF
TVFEAAFNKAIKESTGGAYDTYKCIPSLEAAVKQAYAATVAAAPQV
KYAVFEAALTKAITAMSEVQKVSQPATGAATVAAGAATTAAGAAS
GAATVAAGGYKV

Phl p5a (SEQ ID NO: 65)

ADLGYGPATPAAPAAGYTPATPAAPAGADAAGKATTEEQKLIEKIN
AGFKAALAGAGVQPADKYRTFVATFGPASNKAFAGEGLSGEPKGAA
ESSSKAALTSKLDAAAYKLAYKTAEGATPEAKYDAYVATLSEALRII
AGTLEVHAVKPAAEEVKVIPAGELQVIEKVDAAFKVAATAANAAP
ANDKFTVFEAAFNDEIKASTGGAYESYKFIPALEAAVKQAYAATVA
~~TAPEVKYTVFETALKKAFTAMSEAQKAAPAAATATATAAVGAA~~

15. On page 63, please replace all of the text on page 63 with the following text:

Phl p5 (SEQ ID NO: 66)

AVPRRGPRGGPGRSYAADAGYAPATPAAAGAAEAGKATTEEQKLIE
DINAGFKAAVAAAASVPAADKFKTFEAAFTSSSKAAAKAPGLVPE
LDAAYSVAYKAAVGATPEAKFDSFVASLTEALRVIAGALEVHAVK

PVTEEPGMAKIPAGELQIIDKIDAAFKVAATAAATAPADDKFTVFE
AAFNKAIKESTGGAYDTYKCIPSLEAAVKQAYAATVAAAPQVKYA
VFEAALTKAITAMSEVQKVSQPATGAATVAAGAATTATGAASGAA
TVAAGGYKV

Phl p 5b (SEQ ID NO: 67)

MAVPRRGPRGGPGRSYTADAGYAPATPAAAGAAAGKATTEEQKLI
EDINVGFKAABAARQRPAADKFKTFEAASPRHPRPLRQGAGLVPKL
DAAYSVAYKAAVGATPEAKFDSFVASLTEALRVIAGALEVHAVKP
VTEEPGMAKIPAGELQIIDKIDAAFKVAATAAATAPADDKFTVFEA
AFNKAIKESTGGAYDTYKCIPSLEAAVKQAYAATVAAAAEVKYAV
FEAALTKAITAMSEVQKVSQPATGAATVAAGAATTAAGAASGAAT
VAAGGYKV

Phl p 5 (SEQ ID NO: 68)

MAVHQYTVALFLAVALVAGPAASYAADLGYGPATPAAPAAGYTP
ATPAAPAEAAPAGKATTEEQKLIEKINAGFKAALAAAAGVQPADK
YRTFVATFGAASNKAFAEGLSGEPKGAAESSKAALTSKLDAAAYKL
AYKTAEGATPEAKYDAYVATLSEALRIIAGTLEVHAVKPAAEEVKV
IPAGELQVIEKVDAAFKVAATAANAAPANDKFTVFEAAFNDAIKAS
TGGAYESYKFIPALEAAVKQAYAATVATAPEVKYTVFETALKKAIT
AMSEAQKAAKPAAAATATATAAVGAATGAATAATGGYKV

Phl p 5 (SEQ ID NO: 69)

16. On page 64, please replace all of the text on page 64 with the following text:

SNKAFAEGLSGEPKGAAESSKAALTSKLDAAAYKLAYKTAEGATPE
AKYDAYVATLSEALRIIAGTLEVHAVKPAAEEVKVIPAAELQVIEKV
DAAFKVAATAANAAPANDKFTVFEAAFNDAIKASTGGAYESYKFIP
ALEAAVKQAYAATVATAPEVKYTVFETALKKAITAMSEAQKAAKP

PPLPPPPQPPPLAATGAATAATGGYKV

Phl p 5 (SEQ ID NO: 70)

MAVHQYTVALFLAVALVAGPAASYAADLGYGPATPAAPAAGYTP
ATPAAPAEAAPAGKATTEEQKLI EKINAGFKAALAAAAGVQPADK
YRTFVATFGAASNKAF AEGLSGEPKGAAESSKAALTSKLDAAAYKL
AYKTAEGATPEAKYDAYVATLSEALRIIAGTLEVHAVKPAAEEVKV
IPAGELQVIEKVDAAFKVAATAANAAPANDKFTVFEEAFNDAIKAS
TGGAYESYKFIPALEAAVKQAYAATVATAPEVKYTVFETALKKAIT
AMSEAQKAAKPAAAATATATAAVGAATGAATAATGGYKV

Phl p 5b (SEQ ID NO: 71)

MAVPRRGPRGGPGRSYTADAGYAPATPAAAGAAAGKATTEEQKLI
EDINVGFKA AVAARQRPAADKFKTFE AASPRHPRPLRQGAGLVPKL
DAAYSVAYKAAVGATPEAKFDSFVASLTEALRVIAGALEVHAVKP
VTEEPGMAKIPAGELQIIDKIDAAFKVAATAAATAPADDKFTVFEEA
AFNKAIKESTGGAYDTYKCIPSLEAAVKQAYAATVAAAAEVKYAV
FEAALTKAITAMSEVQKVSQPATGAATVAAGAATTAAGAASGAAT
VAAGGYKV

Phl p 5a (SEQ ID NO: 72)

ADLGYGPATPAAPAAGYTPATPAAPAGADAAGKATTEEQKLI EKIN
AGFKAALAGAGVQPADKYRTFVATFGPASNKAF AEGLSGEPKGAA
ESSKAALTSKLDAAAYKLAYKTAEGATPEAKYDAYVATLSEALRII
AGTLEVHAVKPAAEEVKVIPAGELQVIEKVDAAFKVAATAANAAP

ANDKFTVFEEAFNDAIKAS TGGAYESYKFIPALEAAVKQAYAATVATA
PEVKYTVFETALKKAITAMSEAQKAAKPPPLPPPPQPPPLAATGA
ATAATGGYKV

Phl p 5 (SEQ ID NO: 73)

MAVHQYTVALFLAVALVAGPAASYAADLGYGPATPAAPAAGYTP
ATPAAPAEAAPAGKATTEEQKLIKINAGFKAALAAAAGVQPADK
YRTFVATFGAASNKAFAEGLSGEPKGAAESSKAALTSKILDAAYKL
AYKTAEGATPEAKYDAYVATLSEALRIIAGTLEVHAVKPAAEEVKV
IPAGELQVIEKVDAAFKVAATAANAAPANDKFTVFEEAFNDAIKAS
TGGAYESYKFIPALEAAVKQAYAATVATAPEVKYTVFETALKKAIT
AMSEAQKAAKPAAAATATATAAVGAATGAATAATGGYKV

Phil p 6 (SEQ ID NO: 74)

MAAHKFMVAMFLAVAVVLGLATSPTAEGGKATTEEQKLIEDVNA
SFRAAMATTANVPPADKYKTFEAAFTVSSKRNLADAVSKAPQLVP
KLDEVYNAAYNAADHAAPEDKYEAFVLHFSEALRIIAGTPEVHAV
KPGA

Phil p 6 (SEQ ID NO: 75)

SKAPQLVPKLDEVYNAAYNAADHAAPEDKYEAFVLHFSEALHIIAG
TPEVHAVKPGA

Phil p 6 (SEQ ID NO: 76)

ADKYKTFEAAFTVSSKRNLADAVSKAPQLVPKLDEVYNAAYNAAD
HAAPEDKYEAFVLHFSEALHIIAGTPEVHAVKPGA

18. On page 66, please replace all of the text on page 66 with the following text:

Phil p 6 (SEQ ID NO: 77)

TEEQKLIEDVNASFRAAMATTANVPPADKYKTLEAAFTVSSKRNL
ADAVSKAPQLVPKLDEVYNAAYNAADHAAPEDKYEAFVLHFSEALR

Phil p 6 (SEQ ID NO: 78)

MAAHKFMVAMFLAVAVVLGLATSPTAEGGKATTEEQKLIEDINAS
SFRAAMATTANVPPADKYKTLEAAFTVSSKRNLADAVSKAPQLVP
KLDEVYNAAYNAADHAAPEDKYEAFVLHFSEALHIIAGTPEVHAVK

PGA

Phl p 6 (SEQ ID NO: 79)

MVAMFLAVAVVLGLATSPTAEGGKATTEEQKLIEDVNASFRAAMA
TTANVPPADKYKTFEAAFTVSSKRNLADAVSKAPQLVPKLDEVYN
AAYNAADHHAAPEDKYEAFVLHFSEALRIIAGTPEVHAVKPGA

Phl p 7 (SEQ ID NO: 80)

MADDMERIFKRFDTNNGDGKISLSELTDALRTLGSTSADEVQRMMA
EIDTDGDGFIDFNEFISFCNANPGLMKDVAKVF

Phl p 11 (SEQ ID NO: 81)

MSWQTYVDEHLMCEIEGHHLASAAILGHDGTVWAQSADFPQFKPE
EITGIMKDFDEPGHLAPTGMFVAGAKYMVIQGEPRVIRGKKGAG
GITIKKTGQALVVGIYDEPMTPGQCNMVVERLGDYLV EQGM

Additional Phleum sequences (NCBI entrez accession):

458878; 548863; 2529314; 2529308; 2415702; 2415700; 2415698;
542168; 542167; 626037; 542169; 541814; 542171; 253337; 253336;
453976; 439960

19. On page 67, please replace all of the text on page 67 with the following text:

Wasp (and related)

Vespula sequences:

465054 ALLERGEN VES V 5 (SEQ ID NO: 82)

MEISGLVYLIIIVTIIDLPGYKANNYCKIKCLKGGVHTACKYGS LKPN
CGNKVVVSYGLTKQEKQDILKEHNDFRQKIARGLETRGNPGPQPPA

ATLGSTAAKYDDPVKIAKAIWEDFAKDYNPKKKESGNDDEKIGHY

TQM V WANTKEVGC GSIKYIQEKWHKH YLCNYGPSGNEMNEELY

QTK

1709545 ALLERGEN VES M 1 (SEQ ID NO: 83)

GPKCPFNSDTVSIHETRENRNRDLYTLQTLQNHPEFKKKTITRPVVF
ITHGFTSSASEKNFINLAKALVDKDNYMVISIDWQTAACCTNEYPGL
KYAYYPTAASNTRLVGQYIATITQKLVKDYKISMANIRLIGHSLGAH
VSGFAGKRVQELKLGKYSEIHGLDPARPSFDSNHC'SERLCETDAEYV
QIIHTSNYLGTEKILGTVD FYMNNKGKNNPGCGRFFSEVCSHTRAVIY
MAECIKHECCLIGIPRSKSSQPISRCTKQECVCVGLNAKKYPSRGSFY
VPVESTAPFCNNKGKII

1352699 ALLERGEN VES V 1 (SEQ ID NO: 84)

MEENMNLKYLLLFVYFVQVLNCCYGHGDPLSYELDRGPKCPFNSD
TVSIHETRENRNRDLYTLQTLQNHPEFKKKTITRPVVFITHGFTSSAS
ETNFINLAKALVDKDNYMVISIDWQTAACCTNEAAGLKYLKYPTAA
RNTRLVGQYIATITQKLVKHYKISMANIRLIGHSLGAHASGFAGKKV
QELKLGKYSEIHGLDPARPSFDSNHC'SERLCETDAEYVQIIHTSNYLG
TEKTLGTVD FYMNNKGKNNPGCGRFFSEVCSHSRAVIYMAECIKHE
CCLIGIPKSKSSQPISSCTKQECVCVGLNAKKYPSRGSFYVPVESTAP
FCNNKGKII

20. On page 68, please replace all of the text on page 68 with the following text:

1346323 ALLERGEN VES V 2 (SEQ ID NO: 85)

SERPKRVFENIYWNVPTFMCHQYDLYFDEVTNENIKRNSKDDFQGD
KIAIFYDPGEFPALLSLKDGKYKKRNNGGVPQEGNITHLQKFIENLD
KIYPNRNFSGIGVIDFERWRPIFRQNWGNMKIHKNFSIDLVRNEHPT
WNKKMIELEASKRFEKYARFFMEETLKLAKKTRKQADWGYYGYF

LEPDQRIGLVQGRVKEFAVRISNNIKHSPKATSYWWYAYQDEINTF
LTETDVKKTFQEIVNGGDGHIWGSSSDVNSLSKCKRLQDYLLTVLG
PEAINVHAYN

549194 ALLERGEN VES V 1 (SEQ ID NO: 86)

MDSPCLVALLVFSFVIGSCFSDNPIDSCWRGDSNWAQNRMKLADC
AVGFGSSTMGGKGGDLYTVTNSDDDPVNPAPGTLRYGATRDRPL
WIFSGNMNIKLKMPMYIAGYKTFDGRGAQVYIGNGGPCVFIKRVS
NVIHGLYLYGCSTSVLGNVLINESFGVEPVHPQDGDALTLRTATNI
WIDHNSFSNSSDGLVDVTLTSTGVTISNNLFFNHHKVMSLGHDDAY
SDDKSMKVTVAFNQFGPNCGQRMPRARYGLVHVANNNYDPWTIY
AIGGSSNPITLSEGNSTAPNESYKKQVTIRIGCKTSSSCSNWVWQST
QDVFYNGAYFVSSGKYEGGNIYTKKEAFNVENGNAIPHILTQNAGV

LTCSLSKRC

Dog

Canis sequences:

Can f 1 (SEQ ID NO: 107)

MKTLLLTIGFSLIAILQAQDTPALGKDTVAVSGKWYLKAMTADQE
VPEKPDSVTPMILKAQKGGNLEAKITMLTNGQCQNITVVLHKTSEP
GKYTAYEGQRVVFIQSPVRDHYILYCEGELHGRQIRMAKLLGRDP
EQSQEALEDFREFSRAKGLNQEILELAQSETCSPGGQ

28. On page 76, please replace all of the text on page 76 with the following text:

Serum albumin fragment (SEQ ID NO: 108)

EAYKSEIAHRYNDLGEEHFRGLVL

Serum albumin fragment (SEQ ID NO: 109)

LSSAKERFKCASLQKFGDRAFKAWSVARLSQRFPKADFAEISKVVT

PVTEKSQCTAFVFRDEIPGDIPSLAADFAFDKFACKNYQFAKDAE
LGTFLEYEYSRRHPEYSVSLLLRLAKEYEATLEKCCATDDPPTCYAK
VDETEKPEVDIPQNAKINCEETKIGVGEQNAATARYTKKAPQ
ASTPTLVVEVSRKLGKVGTKCKKPESEFMSCADDETS

5KVNICKIKCLKGGVHTACKYGTSTKPNCGKMVVKAYGLTEAEK
QEILKVIHINFRQKVAKGLETRGNPGPQPPAKNMNNLVWNDELANI
AQVWASQCNYGHDTCKDTEKYPVGQNIKRSTTAALFDSPGKLVK
MWENEVKDFNPNIWSKNNLKKTGHYTQMVMWAKTKEIGCGSVKY
VKDEWYTHYLCNYGPSGNFRNEKLYEKK

Additional vespula sequences (NCBI entrez accession):

549193; 549192; 549191; 549190; 549189; 117414; 126761; 69576;
625255; 627189; 627188; 627187; 482382; 112561; 627186; 627185;
1923233; 897645; 897647; 745570; 225764; 162551.

Tree allergen sequences (mainly birch) sequences:

114922 Bet v 1 (SEQ ID NO: 87)

MGVFNYETETTSVIPAAARLFKAFILDGDNLFKVPQAISSVENIEG
NGGPGTIKKISFPEGFPFKYVKDRVDEVDHTNFKYNYSVIEGGPIGD
TLEKISNEIKIVATPDGGSILKISNKYHTKGDHEVKAEQVKASKEMG
ETLLRAVESYLLAHSDAYN

21. On page 69, please replace all of the text on page 69 with the following text:

130975 Bet v 2 (SEQ ID NO: 88)

MSWQTYVDEHLMCDIDGQASNSLASAIVGHDGSVWAQSSSFPQFK
PQEITGIMKDFEPPGHLAPTGLHLGGIKYMVIQGEAGAVIRGKKKSG
GITIKKTGQALVFGIYEEPVTPGQCNMVVERLGDYLIDQGL

1168696 Bet v 3 (SEQ ID NO: 89)

MPCSTEAMEKAGHGHASTPRKRSLSNSSFRLRSESLNTRLRLRRIFDL

DEISLHQSLNDSYFAYCGEDEFDDNFEDMRKSHSQFEADSEGGGEKA
FEDEDGDGYISARELQMVLGKLGFSEGGSEIDRVEKMIVSVDSNRDGR
VDEFEKDMRSLVRS

809536 Bet v 4 (SEQ ID NO: 90)

MADDHPQDKAERERIFKREFDANGDGKISAAELGEALKTLGSITPDE

VKHMMAEIDTDGDFISFQEFTDFGRANRGLLKDVAKIF

543675 Que a I (SEQ ID NO: 91)- Quercus alba=oak trees (fragment)

GVFTXESQETSVIAPANLFLKALFL

543509 Car b I (SEQ ID NO: 92)- Carpinus betulus=hornbeam trees (fragment)

GVFNIEAETPSVIPAAARLFKSYVLDGDKLIPKVAPQAIXK

543491 Aln g I (SEQ ID NO: 93)- Alnus glutinosa=alder trees (fragment)

GVFNIEAETPSVIPAAARLFKAFILDGDKLLPKVAPEAVSSVENI

1204056 Rubisco (SEQ ID NO: 94)

VQCMQVWPPLGLKKFETLSYLPPLSSEQLAKEVDYLLRKNLIPCLE

FELEHGFVYREHNRSPGYDGRYWTMWKLPFMFGCNDSSQVLKEL

EECKKAYPSAFIRIIGFDDK

22. On page 70, please replace all of the text on page 70 with the following text:

Additional tree allergen sequences (NCBI entrez accession number):

131919; 128193; 585564; 1942360; 2554672; 2392209; 2414158;

1321728; 1321726; 1321724; 1321722; 1321720; 1321718; 1321716;

1321714; 1321712; 3015520; 2935416; 464576; 1705843; 1168701;

1168710; 1168709; 1168708; 1168707; 1168706; 1168705; 1168704;

1168703; 1168702; 1842188; 2564228; 2564226; 2564224; 2564222;

2564220; 2051993; 1813891; 1536889; 534910; 534900; 534898;

1340000; 1339998; 2149808; 66207; 2129477; 1076249; 1076247;

629480; 481805; 81443; 1361968; 1361967; 1361966; 1361965;

629483; 629482; 629481; 541804; 320845; 81444; 541814; 629484;

474911; 452742; 1834387; 298737; 298736; 1584322; 1584321; 584320;

1542859; 1542857; 1483232; 1483230; 1483228; 558561; 551640;

488605; 452746; 452744; 452740; 452738; 452736; 452734; 452732;
452730; 452728; 450885; 17938; 17927; 17925; 17921; 297538; 510951;
289331; 289329; 166953 .

Peanut

Peanut sequences

1168391 Ara h 1 (SEQ ID NO: 95)

MRGRVSPLMLLLGILVLASVSATHAKSSPYQKKTENPCAQRCLQSC
QQEPDDLKQKACESRCTKLEYDPRCVYDPRGHTGTTNQRSPPGER
TRGRQPGDYDDDRRQPRREEGGRWGPAGPREREREEDWRQPRED
WRRPSHQQPRKIRPEGREGEQEWGTPGSHVREETSRRNNPFYFPSRR
FSTRYGNQNGRIRVLQRFDQRSRQFQNLQNHRIVQIEAKPNTLVLP
KHADADNILVIQQGQATVTVANGNNRKSFNLDEGHALRIPSGFISYI
LNRHDNQNLRVAKISMPVNTPGQFEDFFPASSRDQSSYLQGFSRNT

23. On page 71, please replace all of the text on page 71 with the following text:

LEAAFNAEFNEIRRVLLEENAGGEQEERGQRRWSTRSSENNEGVIV
KVSKEHVEELTKHAKSVSKKGSEEEGDITNPINLREGEPDLSNNFGK
LFEVKPDKKNPQLQDLDMMLTCVEIKEGALMLPHFNSKAMVIVVV
NKGTTGNLELVAVRKEQQQRGRREEEDEDDEEEEGSNREVRRTAR
LKEGDVFIMPAAHPVAINASSELHLLGFGINAENNHRIFLAGDKDN
VIDQIEKQAKDLAFPGSGEQVEKLIKQKESHFVSARPQSQSQSPSSP
EKESPEKEDQEEENQGGKGPLLSILKAFN

Ragweed

113478 Amb a 1 (SEQ ID NO: 96)

MGIKHCCYILYFTLALVTLLQPVRSAEDLQQILPSANETRSUTTCGI
VNHDDGWRGKADWATNRKATADCAQGLAKGTHGKDDDTLVPS
LHDDDVANPKEGHLREGAAQNRPIWHFARDMIVIRIDREHAINNDK

TIDGRGAKVEIINAGFAIYNVKNIIHNIIMHDIIVNPGGLIKSHDGPP
VPRKGS DGD AIGISGGSQIWIDHCSLSKAVDGLIDAKHGSTHFTVSN
CLFTQH QYLLLFWD FDERGMLCTVAFNKFTDNVDQRM PNLRHGF
VQVVNN NYERWGSYALGGSAGPTILSQGNRFLASDIKKEVVGRYG
ESAMSESINWNWRSYMDVFENG AIFVPSGVDPVLTPEQNAGMIPAE
PGEAVLRLTSSAGVLSCQPGAPC

113479 Amb a 2 (SEQ ID NO: 97)

MGIKHCCYILYFTLALVTLVQAGRLGEEVDILPSPNDTRRSLQGCE
AHNIIDKCWRCKPDWAENRQALGNCAQGF GKATHGGKWGDIYM
VTSDQDDDVVNPK EGT LRF GATQDRPLWIIFQRDMIIYLQQEMVVT
SDKTIDGRGAKVELVYGGITLMNVKNV IHNIDIHDVRVLPGGRIKS
NGGPAIPRHQSDGD A IHVTGSSDIWIDHCTLSKSFDGLVDVNWGST
GVTISNCKFTHHEKAVLLGASDTHFQDLKMHVTLAYNIFTNTVHE

24. On page 72, please replace all of the text on page 72 with the following text:

RMPCRFRGFFQIVNNFYDRWDKYAIGGSSNPTILSQGNKFVAPDFIY
KKNVCLRTGAQEPEWMTWNWRTQNDVLENGAIFVASGSDPVLT A
EQNAGMMQAEPGDMVPQLTMNAGVLTCS PGAPC

113477 Amb a 1.3 (SEQ ID NO: 98)

MGIKQCCYILYFTLALVALLQPVRSAEGVGEILPSVNETRSLQACEA
LNIIDKCWRGKADWENNRQALADCAQGF AKGT YGGKWGDVYTV
TSNLDDDVANPK EGT LRF AAAQNRPLWIIFKNDMVINLNQELVVN
SDKTIDGRGVKVEIINGGLTLMNVKNIIHNIHDIHDVKVLPGGMIKSN

HSNCKFTQQSKAHTGADDTHTVQDKGMATAVAFNMFTDNVDQR
MPCRFRGFFQVVNNNYDRWGTYAIGGSSAPTILCQGNRFLAPDDQI
QENATARTGIGAAISMAWNRSDKDELLNGAIFVASGSDPVLTPE
QSAGMIPAE PGEAAIKETSSAGVLSCHPGAPC

113476 Amb a 1.2 (SEQ ID NO: 99)

CG
C
MGIKHCCYILYFTLALVTLLQPVRSAEDVEEFLPSANETRRSLKACE
AHNIIDKCWRCKADWANNRQALADCAQGFAKGTGGKHGDVYT
VTSDKDDDVANPKEGTLRFAAAQNRPLWIIFKRNMVIIHNQELVV
NSDKTIDGRGVKVNIVNAGLTLMNVKNIIIIININIIHDIKVCPPGGMKS
NDGPPILRQQSDGDAINVAGSSQIWIDHCSLSKASDGLDITLGSSHV
TVSNCKFTQHQQFVLLLGADDTHYQDKGMLATVAFNMFTDHVDQR
MPRCRFGFFQVVNNNYDRWGTYAIGGSSAPTILSQGNRFFAPDDIHK
KNVLARTGTGNAESMSWNWRTDRDLENGAIFLPSGSDPVLTPAQ
KAGMIPAEPGEAVLRLTSSAGVLSCHQAPC

113475 Amb a 1.1 (SEQ ID NO: 100)

MGIKHCCYILYFTLALVTLLQPVRSAEDLQEILPVNETRRLTTSGAY
NIIDGCWRGKADWAENRKALADCAQGFVKGTGGKDGDIYTVTS
ELDDDVANPKEGTLRFGAAQNRPLWIIFERDMVIRLDKEMVVNSD

25. On page 73, please replace all of the text on page 73 with the following text:

CG
KTIDGRGAKVEIINAGFTLNGVKNVIIHNINMHDVKVNPGLIKSND
GPAAPRAGSDGDAISISGSSQIWIDHCSLSKSVDGLVDAKLGTTTLT
VSNSLFTQHQQFVLLFGAGDENIEDRGMLATVAFNTFTDNVDQRMF
RCRHGFFQVVNNNYDKWGSYAIGGSASPTILSQGNRFCAPDERSKK
NVLGRHGEAAAESMKWNWRTNKDVLNGAIFVASGVDPVLTPAQ
SAGMIPAEPGESALSLTSSAGVLSCHQAPC

Cedar sequences

MIDSPCTVATLVESEAIGSCFSDNPIIDSCWRGDSNW AQNRMIKTADG
AVGFGSSTMGGKGGDLYTVTNSDDDPVNPPGTLRYGATRDRPLWI
EISGNMNIKTLMIPMYTGYKTHDGRCAQVYIENGGPCVYIKRASN
IHHGLYTYGCTSVTGNVTINESFGVFPVHPQDGDALTRLATNIWI

DHNSFSNSSDGLVDVTLTSTGVTISNNLFFNHHKVM SLGHDDAYSD
DKSMKVTVAFNQFGPNC GQRMPRARYGLVHVANN NYDPWTIYAI
GGSSNP TILSEGN SFTAPNESYKKQVTIRIGCKTSSSSCSNWVWQSTQ
DVFYNGAYFVSSGKYEGGNIYTKKEAFNVENG NATPHLTQNAGVL
TCSLSKRC

493632 Cry j 1A precursor (SEQ ID NO: 102)

MDSPCLVALLVLSFVIGSCFSDNPIDSCWRGDSNWAQNRMKLADC
AVGFGSSTMGGKGGDLYTVTNSDDDPVNPAPGTLRYGATRDRPL
WIIFSGNMNIKLKMPMYIAGYKTFDGRGAQVYIGNGGPCVFIKRVS
NVIIHGLHLYGCSTSVLGNVLINESFGVEPVHPQDGDALTLRTATNI
WIDHNSFSNSSDGLVDVTLSSSTGVTISNNLFFNHHKVM L LGHDDAY
SDDKSMKVTVAFNQFGPNC GQRMPRARYGLVHVANN NYDPWTIY
AIGGSSNP TILSEGN SFTAPNESYKKQVTIRIGCKTSSSSCSNWVWQST
QDVFYNGAYFVSSGKYEGGNIYTKKEAFNVENG NATPQLTKNAGV
LTCSLSKRC

26. On page 74, please replace all of the text on page 74 with the following text:

1076242 Cry j II precursor - Japanese cedar (SEQ ID NO: 103)

MAMKLIAPMAFLAMQLIIMAAAEDQSAQIMLDSVVEKYLR SNRSL
RKVEHSRHDAINIENVEKYGAVGDGKHDC TEAFSTAWQAACKNPS
AMLLVPGSKKFVNNLFFNGPCQPHFTFKVDGIIAAYQNPASWKN
NRIWLQFAKLTGFTLMGKGVIDGQGKQWWAGQCKWVNGREICND
RDRPTAIKFDEFSTGLIIQGLKLMNSPEFHLVEGNCEGVKIIIGISITAPR

GHIGISIGSLGRENSRAFVSYVHVNGAKFIDTQNGIRIKTWQGGSGM
ASHIIYENVEMINSENPIINQFYCT SASACQNQRS AVQIQDVTYKNI
RGTSALVAAIQKCSDSMPCKDIKESDISTKESGRTASCUNDNANG
YESGHVIPACKNISPSAKRKESKSHKHPKIVMVENMRAYDKGNRI

RILIGSRPPNCTNKCHGCS PCKAKLVIVHRIMPQEYYPQRWICSCHG
KIYHP

1076241 Cry j II protein - Japanese cedar (SEQ ID NO: 104)

MAMKFIAPMAFVAMQLIIMAAAEDQSAQIMLSDIEQYLRNRSR
KVEHSRHDAINIENVEKYGAVGDGKHDCTEAFSTAWQAACKKPSA
MLLVPGNKKFVVNNLFFNGPCQPHFTFKVDGIIAAYQNPASWKNN
RIWLQFAKLTGFTLMGKGVIDGQKQWWAGQCKWVNGREICNDR
DRPTAIKFDEFSTGLIIQGLKLMNSPEFHLVFGNCEGVKIIIGISITAPRD
SPNTDGIDIFASKNFHLQKNTIGTGDDCVAIGTGSSNIVIEDLICGPG
HGISIGSLGRENSRAEVS YVHVNGAKFIDTQNGRLRIKTWQGGSGMA
SHIYENVEMINSENPIIINQFYCT SASACQNQRS AVQIQDVTYKNIR
GTSATAAAIQLKCSDSMPCKDIKLSDISLKLTS GKIASC LNDNANGY
FSGHVIPACKNLSPSAKRKESKSHKHPKTMVKNMGAYDKGNRTRI
LLGSRPPNCTNKCHGCS PCKAKLVIVHRIMPQEYYPQRWMCSRHG
KIYHP

541803 Cry j I precursor - Japanese cedar (SEQ ID NO: 105)

27. On page 75, please replace all of the text on page 75 with the following text:

MDSPCLVALLVLSFVIGSCFSDNPIDSCWRGDSNWAQNRMKLADC
AVGFGSSTMGGKGGDLYTVTNSDDDPVNPPGTLRYGATRDRPLWI
IFSGNMNIKLKMPMYIAGYKTFDGRGAQVYIGNGGPCVFIKRVS NV
IHHGLHLYGCSTSVLGNVLINESFGVEPVHPQDGDALTLRTATNIWI
DHNSFSNSSDGLVDVTLSS TGVTISNNLFFNHHKVMLLGHDDAYS D

GGSSNPETHSEGNSEIAPNESYKKQVIRIGCKTSSSCSNWWQSTIQ
DVFYNGAYFVSSGKYEGGNIYTKKEAFNVENG NATPQLTKNAGVL
LCSTSKRC

541802 Cry j I precursor - Japanese cedar (SEQ ID NO: 106)

Can f 2 (SEQ ID NO: 110)

MQLLLLTVGLALICGLAQEGNHEEPQGGLEELSGRWHVALASN
KSDLIKPWGHRVFIHMSAKDGNLHGDILIPQDGQCEKVS LTAFKT
ATSNKFDLEYWGHNDLYLAEVDPKSYLILYMINQYNDDTSLVAHL
MVRDL SRQQDFLPAFESVCEDIGLHKDQIVVLSDDDR CQGSRD

Additional dog allergen protein (NCBI entrez accession):

1731859

Horse

Equus sequences:

1575778 Equ c1 (SEQ ID NO: 111)

CK
2
1575778
MKLLLLCLGLILVCAQQEENS DVAIRNFDISKISGEWYSIFLASDVK
EKIEENGSMRVFVDVIRALDNSSLYAEYQTKVNGECTEF?MVFDKT
EEDGVYSLNYDGYNVFRISEFENDEHIILYLVNFDKDRPFQLFEFYA
REPDVSP~~E~~IKEEFVKIVQKRGIVKENIIDLT~~K~~IDRC~~F~~QLRGNGVAQA

29. On page 77, please replace all of the text on page 77 with the following text:

3121755 Equ c 2 (SEQ ID NO: 112)

SQXPQSETDYSQLSGEWNTIYGAASNIX

Euroglyphus (mite)

Euroglyphus sequences:

Eur m 1 (variant) (SEQ ID NO: 113)

TYACSINSVSLPSELDLRSRLRTVTPIRMQGGCGSCWAFSGVASTESA
YLAYRNMSLDLAEQELVDCASQNGCHGDTIPRGIEYIQQNGVVQE

VAVHGHKDENAERHYDGRTHMQHDNGYQPNYHAAVNIYGYGNTQGG
VDYWIVRNSWDTTWGDNGYGYFAANINL

Eur m 2 (variant) (SEQ ID NO: 114)

TYACSINSVSLPSELDLRSRLRTVTPIRMQGGCGSCWAFSGVASTESA

YLAYRNMSLDLAEQELVDCASQNGCHGDTIPRGIEYIQQNGVVQE
HYYPYVAREQSCHRPNAQRYGLKNYCQISPPDSNKIRQALTQTHTA
VAVIIGIKDLNAFRHYDGRTIMQHDNGYQPNYHAVNIVGYGNTQG
VDYWIVRNSWDTTWGDNGYGYFAANINL

Eur m 1 (variant) (SEQ ID NO: 115)

ETNACSINGNAPAEIDLRQMRTVTPIRMQGGCGSCWAFSGVAATES
AYLAYRNQSLDLAEQELVDCASQHGCHGDTIPRGIEYIQHNGVVQE
SYRYVAREQSCRRPNAQRFGISNYCQIYPPNANKIREALAQTHSAI
AVIIGIKDLDAFRHYDGRTHIQRDNGYQPNYHAVNIVGYSNAQGVD
YWIVRNSWDTNWGDNGYGYFAANIDL

Eur m 1 (variant) (SEQ ID NO: 116)

ETSACRINSYNVPSELRLRTVTPIRMQGGCGSCWAFSGVAATES

30. On page 78, please replace all of the text on page 78 with the following text:

AYLAYRNTSLDLSEQELVDCASQHGCHGDTIPRGIEYIQQNGVVEE
RSYPYVAREQQCRRPNSQHYGISNYCQIYPPDVKQIREALTQTHTAI
AVIIGIKDLRAFQHYDGRTHIQHDNGYQPNYHAVNIVGYGSTQGVD
YWIVRNSWDTTWGD SGYGYFQAGNNL

Poa (grass) sequences

113562 POLLEN ALLERGEN POA P 9 (SEQ ID NO: 117)

MAVQKYTVLFLVALVVGPAASYAADLSYGAPATPAAPAAGYTP
AAPAGAAPKATTDEQKMIEKINVGFKA AVAAAGGVPAANKYKTFV
ATFGAASNKAFAEALSTEPKGA AVDSSKAALTSKLDAAYKLAYKS

ETQVIDKVDAAFKVAAALANAAPANDKFTVFAAFNDAIKASTGG
AYQSYKFIPALEAAVKQSYAATVATAPAVKYTVFETALKKAITAMS
QAQKAAKPAAAVIGLATAAVGAAVIGAAVAAAGGYK

113561 POA P 9 (SEQ ID NO: 118)

MAVHQYTVALFLAVALVAGPAASYAADVGYGAPATLATPATPAA
PAAGYTPAAPAGAAPKATTDEQKLIKINAGFKA AVAAAAGVPAV
DKYKTFVATFGTASNKAFAEALSTEPKGAAAASSNAVLT SKLDAA
YKLAYKSAEGATPEAKYDAYVATLSEALRIIAGTLEVHAVKPAGEE
VKAIPAGELQVIDKVDAAFKVAATAANAAPANDKFTVFEAAFNDA
IKASTGGAYQSYKFIPALEAAVKQSYAATVATAPAVKYTVFETALK
KAITAMSQAQKAAKPAAAVTATATGAVGAATGAVGAATGAATAA
AGGYKTGAATPTAGGYKV

113560 POA P 9 (SEQ ID NO: 119)

MDKANGAYKTALKAA SAVAPAEKFPVFQATFDKNLKEGLSGPDA
VGFAKKLDAFIQTSYLS TKAAEPKEKFDLFVLSLTEVLRFMAGAVK
APPASKFPAKPAPKVAAYTPAAPAGAAPKATTDEQKLIKINVGFK

31. On page 79, please replace all of the text on page 79 with the following text:

AAVAAAAGVPAASKYKTFVATFGAASNKAFAEALSTEPKGAAVAS
SKAVLT SKLDAAYKLAYKSAEGATPEAKYDAYVATLSEALRIIAGT
LEVHGVKPAAEEVKAIPAGELQVIDKVDAAFKVAATAANAAPAND
KFTVFEAAFNDAIKASTGGAYQSYKFIPALEAAVKQSYAATVATAP
AVKYTVFETALKKAITAMSQAQKAAKPAAAVTGTATSAVGAATGA
ATAAAGGYKV

Cockroach sequences

2833325 Cr p1 (SEQ ID NO: 120)

MKTALVFAAVVAFVAARFPDHKDYKQLADKQFLAKQRDVLRLFH

RGEPESVNYEKHREQAIMLYDLYEANDYDLYEKTACWARDRVN
EGMFMYSESI AVFHRDDMQGVMLPPPYEVYPYLFVDHDV IHMAQ
KYWMKNAGSGEHIISHVIPA N E I R T Q D H I L A Y E I S D A N I N A I N E Y
YRYYYPSWYN I I I Y G H N I D R R G E Q E Y Y I Y K Q I Y A R Y F L E R L S N D I P

DVYPFYYSKPVKSAYNPRLRYHNGEEMPVRPSNMYVTNFDLYYIA
DIKNYEKRVEDAIDFGYAFDEHMKPHSLYHDVHGMEYLADMIEG
NMDSPNFYFYGSIYHMYHSMIGHIVDPYHKMGLAPSLHPETVLR
DPVIFYQLWKRVDHLFQKYKNRLPRYTHDELAFEGVKVENVDVGK
LYTYFEQYDMSLDMAVYVNNVDQISNVDVQLAVRLNIHKPFTYNIE
VSSDKAQDVYVAVFLGPKYDYLGREYDLNDRRHYPVEMDRFPYH
VGAGKTVIERNSHDSNIIAPERDSYRTFYKKVQEAYEGKSQYYVDK
GHNYCGYPENLLIPKGGKGGQAYIFYVIVIPYVKQDEHDFEPYNY
KAFSYCGVGSEKYPDNKPLGYPFDRKIYSNDFYTPNMYFKDVIIIF

HKKYDEVGVQGH

2231297 Cr p2 (SEQ ID NO: 121)

INEIHSIIGLPPFVPPSRRHARRGVGINGLIDDVIAILPVDELKALFQE
KLETSPDFKALYDAIRSPEFQSIISTLNAMQRSEHHQNLRDKGVDVD

32. On page 80, please replace all of the text on page 80 with the following text:

HFIQLIRALFGLSRAARNLQDDLNDLHSLPISPRHRHGLPRQRRR
SARVSAYLHADDFHKIITTIEALPEFANFYNFLKEHGLDVVDYINEI
HSIIGLPPFVPPSRRHARRGVGINGLIDDVIAILPVDELKALFQEKLET
SPDFKALYDAIRSPEFQSIISTLNAMPEYQELLQNLRDKGVDVDHFI
RVDQGTIRTLSSGQRNLQDDLNDLALIPTDQILAIAMDYLANDAE
VQELVAYLQSDDFHKIITTIEALPEFANFYNFLKEHGLDVVDYINEI
HSIIGLPPFVPPSRRHARRGVGINGLIDDVIAILPVDELKALFQEKLET
SPDFKALYDAIDLRSSRA

MIGKIVIVIEAVATTHAAITQRVPIYKIVIVTINTQYAGTKIGN
QNFLTVDSTSCNVVVASQECVGGACVCPNLQKYEKLKPKYISDG
VQVKEEDTGSVVGRCIEDSEISNIEISQQDIVTADIESQVCHISA
DVVVGLAAPGCPNALKGGKIVLENFVEENIAPVESIIHAREQDGEH

EGEIIFGGSDWKYVDGEFTYVPLVGDDSWKFRLDGVKIGDTTVAPA
GTQAIIIDTSKAIIVGPKAYVNPINEAIGCVVEKTTTRRICKLDCSKIPS
LPDVTFVINGRNFNISQYYIQQNGNLCYSGFQPCGHSDDHFFIGDFF
VDHYYSEFNWENKTMGFGRSVE
SV

1705483 Bl a g 4 (SEQ ID NO: 123)

AVLALCATDTLANEDCFRHESLVPNLDYERFRGSWIIAAGTSEALT
QYKCWIDRFSYDDALVSKYTDSQGKNRRTTIRGR TKFEGNKFTIDYN
DKGKAFSAPYSVLATDYENYAIVEGCPAAANGHVIIYVQIRFSVRRF
HPKLGDKEMIQHYTLDQVNQHKKAIEEDLKHFNLYEDLHSTCH

2326190 Bl a g 5 (SEQ ID NO: 124)

YKLTYPVKALGEPYRFLLSYGEKDFEDYRFQEGDWPNLKPSMPFG
KTPVLEIDGKQTHQSVAISRYLGKQFGLSGKDDWENLEIDMIVDTIS
DFRAAIIANYHYDADENSKQKKWDPLKKETIPYYTKKFDEVVKANG

Applicants submit that a marked up version of the above amended pages is enclosed herewith.

Applicants further submit that, as required by 37 C.F.R. §1.821 (g), that the enclosed submission includes no new matter.

Respectfully submitted,

Date: _____

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